

WHAT IS CLAIMED IS:

1. A method of reducing pollen production in plants, which comprises the steps of:
 - a.) introducing into the nucleus of a plant cell a gene construct essentially consisting of a developmentally regulated promoter driving expression of a sequence encoding a mitochondrial transit peptide fused upstream of and in frame with an edited form of the orf224 gene of *Brassica napus* mitochondria, wherein said promoter is expressed during stamen development;
 - b.) selecting for plant cells that have acquired the gene construct in step a); and
 - c.) inducing regeneration of selected plant cells to produce a mature plant with reduced pollen production.
2. The method of claim 1, wherein said promoter is AP3.
3. The method of claim 1, wherein the plant is male fertile.
4. The method of claim 1, wherein the plant is partially male sterile.
5. The method of claim 1, wherein the plant is a *Brassica* plant.
6. The method of claim 1, wherein the plant is an *Arabidopsis* plant.
7. A method of reducing pollen production in partially male sterile *Brassica* plants, which comprises the steps of:
 - a.) introducing into the nucleus of a plant cell a gene construct essentially consisting of a developmentally regulated promoter driving expression of a sequence encoding a mitochondrial transit peptide fused upstream of and in frame with an unedited form of the atp6 gene of *Brassica napus* mitochondria, wherein said promoter is expressed during stamen development;
 - b.) selecting for plant cells that have acquired the gene construct in step a); and
 - c.) inducing regeneration of selected plant cells to produce a mature plant with reduced pollen production.
8. The method of claim 7, wherein the plant is *Brassica napus*.

9. The method of claim 7, wherein step a.) is effected using a plant transformation vector.
10. The method of claim 7, wherein said promoter is AP3.